

**WHAT IS CLAIMED IS:**

1           1.       A system for real-time device driver error handling, comprising:  
2               a computer comprising a device driver, a monitoring unit and a device driver information,  
3               said monitoring unit monitoring an operating state and searching said device driver information, and  
4               outputting said diagnosing message to said computer when said device driver errors occur; and  
5               a web server comprising a driver error handling program, said device driver error handling  
6               program storing a standard driver information, performing a diagnosis of said device driver by  
7               comparing said standard driver information with said device driver information, and displaying said  
8               diagnosing result on said computer.

1           2.       The system of claim 1, with said web server further comprising:  
2               a first portion storing said standard driver information;  
3               a second portion interpreting said device driver information searched by said monitoring unit;  
4               a third portion performing a diagnosis of said device driver by comparing said standard driver  
5               information from said first portion with said device driver information from said second portion; and  
6               a fourth portion displaying the diagnosing result from said third portion to said computer.

1           3.       The system of claim 2, with said fourth portion displaying the error correction result  
2               to said computer after automatically correcting the error by said standard diagnosis information  
3               stored in said first portion in case of an automatically correctable error, said fourth portion displaying  
4               how to correct the error to said computer in case of automatically uncorrectable error when the  
5               device driver error occurs.

1           4.       The system of claim 1, with said monitoring unit being a file of said computer, said  
2               file being a logical block of computer information as designated by a name and treated as a unit.

1           5.       The system of claim 4, with said file not being able to be manipulated by a user of  
2       said computer.

1           6.       The system of claim 2, with said standard driver information being changeable by an  
2       operator of said web server.

1           7.       The system of claim 3, with the automatically uncorrectable error being a hardware  
2       error of said computer or a device corresponding to said device driver.

1           8.       A method of real-time device driver error handling, comprising:  
2               installing a monitoring unit in order to monitor a state of a computer and an operating state  
3       of a device driver in said computer;  
4               storing a standard diagnosis information of said device driver in order to perform a diagnosis  
5       of said device driver;  
6               monitoring an operating state of said device driver to detect device driver errors through said  
7       monitoring unit;  
8               contacting said computer with a web server to execute a driver error handling program  
9       through a network, said driver error handling program performing a diagnosis of said device driver;  
10              confirming the device driver errors by comparing standard driver information with said  
11       device driver information of said device driver; and  
12              displaying a diagnosing result to said computer from said step of confirming the device driver  
13       errors.

1           9.       The method of claim 8, further comprising,  
2       discriminating whether the device driver error is an automatically correctable error or an

3 automatically uncorrectable error;

4 correcting the device driver error when said computer accepts a correction message in case  
5 of the automatically correctable error, thereafter displaying an error correction result; and

6 displaying how to correct the device driver errors in case of the automatically uncorrectable  
7 error.

1 10. The method of claim 8, further comprising  
2 outputting a message of an automatic correction advice to said computer when said computer  
3 does not accept said correction message in case of the automatically correctable error.

1 11. The method of claim 8, with said step of installing said monitoring unit being to  
2 simultaneously install said monitoring unit for said device driver when said device driver is installed  
3 in said computer.

1 12. The method of claim 8, with said web server further comprising:  
2 a first portion storing said standard diagnosis information of said device driver;  
3 a second portion interpreting said device driver information searched by said monitoring unit;  
4 a third portion performing a diagnosis of said device driver by comparing said standard  
5 diagnosis information with said device driver information; and  
6 a fourth portion displaying the diagnosing result to said computer.

1 13. The method of claim 8, with said monitoring unit being a file of said computer, said  
2 file being a logical block of computer information as designated by a name and treated as a unit.

1 14. The method of claim 13, with said file not being able to be manipulated by a user of  
2 said computer.

1           15.    The method of claim 8, with said standard diagnosis information being changeable  
2    by an operator of said web server.

1           16.    The method of claim 9, with the automatically uncorrectable error being a hardware  
2    error of said computer or a device corresponding to said device driver.

1           17.    A method, comprising the steps of:  
2           monitoring an operational state of a device driver installed on a first computer;  
3           storing standard diagnosis information of said device driver on a second computer, said  
4    standard diagnosis information being when an operational state of said device driver is normal;  
5           networking said first computer with said second computer;  
6           outputting said monitored device driver information from said monitoring of the operational  
7    state of said device driver;  
8           sending said monitored device driver information from said first computer to said second  
9    computer;  
10          comparing said standard diagnosis information with said monitored device driver information  
11    to confirm any error with said device driver;  
12          displaying instruction for correcting the error of said device driver when the error is not  
13    automatically correctable; and  
14          correcting the error of said device driver when the error is automatically correctable.

1           18.    The method of claim 17, further comprising the steps of:  
2           instructing by said first computer to said second computer to execute a program after said  
3    step of networking said first computer with said second computer, said program handling the device  
4    driver error on said first computer;

5 searching for a monitoring file on said first computer by said program;  
6 executing said monitoring file through instructions of said program; and  
7 searching for said monitored device driver information by said monitoring file for said step  
8 of outputting said monitored device driver information.

1 19. The method of claim 18, further comprising the step of interpreting the monitored  
2 device driver information before said step of comparing said standard diagnosis information with  
3 said monitored device driver information.

1 20. The method of claim 19, further comprising the steps of:  
2 displaying on said first computer a result of said step of comparing said standard diagnosis  
3 information with said monitored device driver information to confirm any error with said device  
4 driver;  
5 discriminating whether the error is automatically correctable;  
6 prompting a response from said first computer as to whether a correction is to be  
7 automatically executed when the error is automatically correctable; and  
8 displaying on said first computer a result of the error correction after said step of  
9 automatically correcting the error.

1 21. The method of claim 20, with said second computer being a web server displaying  
2 a web page on said first computer for instruction by said first computer.

1 22. The method of claim 20, with the automatically correctable error being a software  
2 related error on said first computer and the automatically uncorrectable error being a hardware  
3 related error on said first computer.

23. The method of claim 20, further comprising the steps of:

recommending a correction of the error when the error is automatically correctable and when said first computer opted no correction in said step of prompting a response from said first computer;

executing no correction of the error when the recommendation is not accepted; and

correcting the error when the recommendation is accepted.